

first conductive patterns, one of the integrated circuit chips being circumvented by the thermal ring and disposed between the carrier layers;

the flow channels being operative to facilitate the circulation of air directly over the integrated circuit chip disposed between the carrier layers.

8. The chip stack of Claim 6 wherein:

each of the ring pads of the first set is electrically connected to a respective one of the ring pads of the second set via a ring through hole; and

each of the carrier pads of the second set is electrically connected to a respective one of the carrier pads of the third set via a carrier through hole.